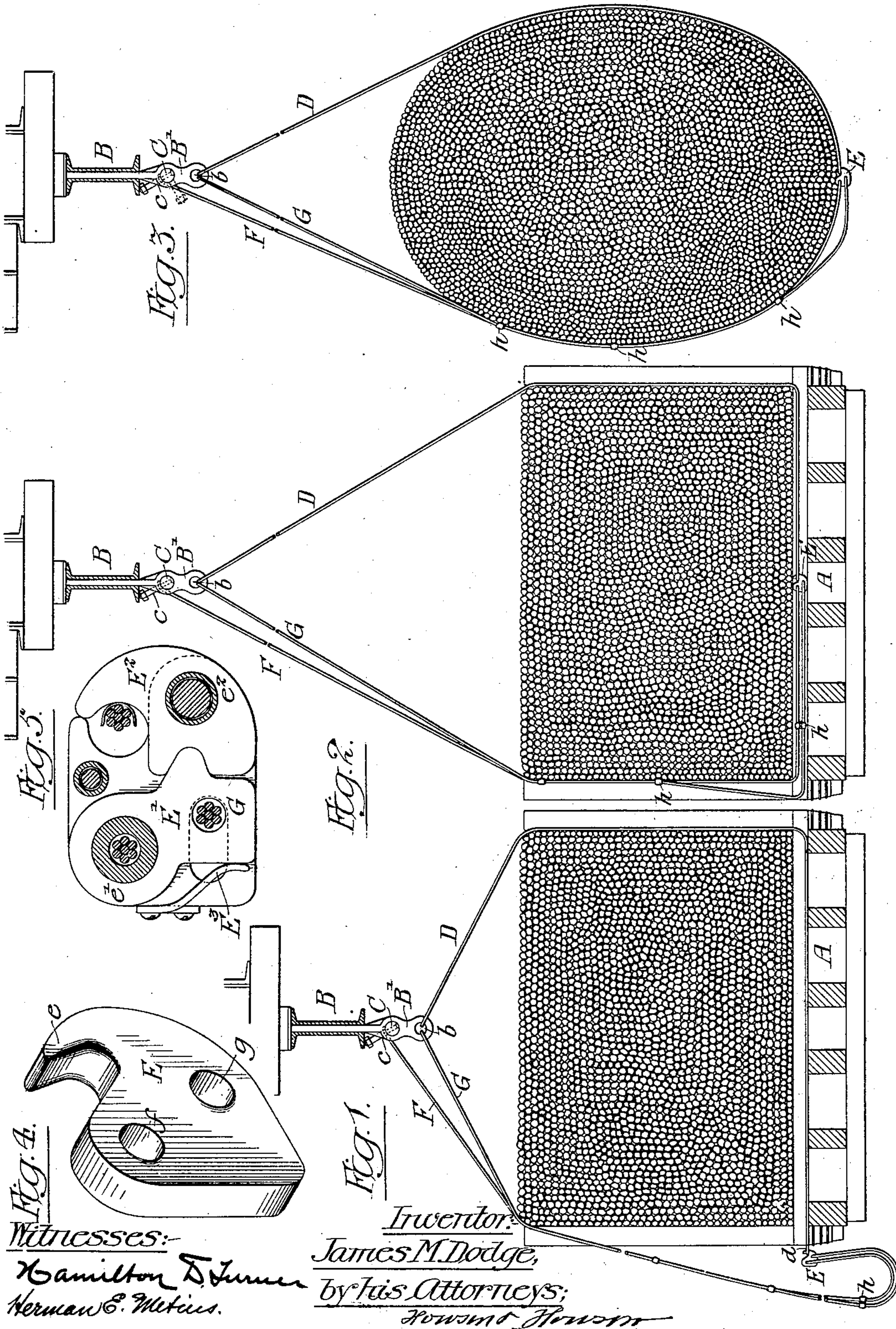


**J. M. DODGE,
CANE SLING.**

(Application filed Aug. 29, 1901.)

(No Model.)

2 Sheets—Sheet 1.



No. 705,393.

Patented July 22, 1902.

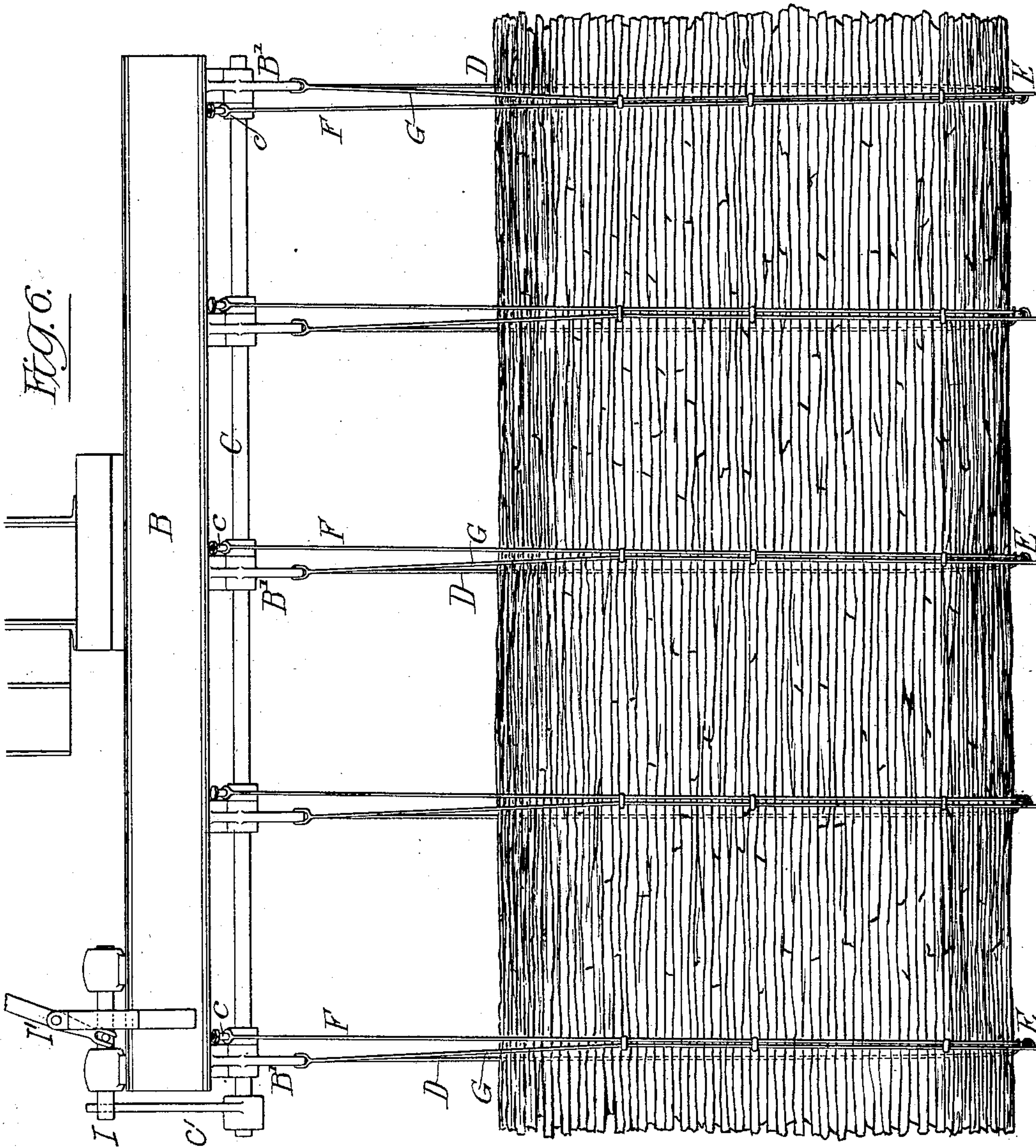
J. M. DODGE.

CANE SLING.

(Application filed Aug. 29, 1901.)

(No Model.)

2 Sheets—Sheet 2.



Witnesses:-

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UNITED STATES PATENT OFFICE.

JAMES M. DODGE, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE
LINK BELT ENGINEERING COMPANY, OF PHILADELPHIA, PENNSYLVANIA,
A CORPORATION OF PENNSYLVANIA.

CANE-SLING.

SPECIFICATION forming part of Letters Patent No. 705,393, dated July 22, 1902.

Application filed August 29, 1901. Serial No. 73,728. (No model.)

To all whom it may concern:

Be it known that I, JAMES M. DODGE, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain
5 Improvements in Cane-Slings, of which the following is a specification.

The object of my invention is to provide means for holding and quickly releasing the sling used in carrying cane, such as sugar-
10 cane, from a car to the hopper of a machine or to a bin. This object I attain in the manner hereinafter set forth, reference being had to the accompanying drawings, in which—

Figure 1 is a sectional view of a car, showing the application of my improved sling to
15 a bundle of cane. Fig. 2 is a view similar to Fig. 1, showing the sling drawn into position ready to lift the cane from the car. Fig. 3 is a view showing the cane suspended in the
20 sling of the car. Fig. 4 is a perspective view of an open hook. Fig. 5 is a view showing a closed hook, and Fig. 6 is a side view of the sling shown in Fig. 3.

A is the body of the car on which the cane
25 is loaded. The floor of the car is spaced sufficiently to allow for the passage of the rope or sling under the load of cane, as clearly shown in the drawings. One or more slings
30 may be used, according to the size of the bundle and the length of the cane. In Fig. 6 I have shown five slings attached to a head; but I will simply describe my invention in connection with one sling, referring to Figs. 1, 2,
and 3.

35 B is a head carried by a traveler, and from this head the sling is suspended. This head has a block B', in which is an eye *b*. Through the eye is passed the end of a rope D, forming one member of the sling. This rope has
40 an eye *d*, through which passes the point *e* of the hook E. F is a rope forming the other member of the sling and attached at *f*, directly back of the point *e* in the present instance. The opposite end of this rope is at-
45 tached to an arm *c* of a shaft C, having its bearings in the block B'. The end of the trip-rope G is also passed through the eye *b* of the block B' and is connected to the hook E

at *g*, directly under the throat of the hook in the present instance, so that when this rope 50 is pulled it will disengage the hook from the eye *d* of the rope D, and thus release the sling and allow the bundle of cane to be discharged.

It will be noticed that when the two ropes D and F are drawn taut, as in Fig. 2, the rope 55 G is slack, so that the two ropes D and F will be securely connected and hold the bundle of cane while it is being lifted from the car and transported to the hopper or other point where it is wished to discharge the load; but once 60 the shaft C is released and is allowed to rotate so that its arm will assume the position shown by dotted lines in Fig. 3 then the rope G becomes taut and the rope F slack, and immediately the hook E will turn and release its 65 hold on the eye of the rope D and allow the bundle of cane to be discharged. Any suitable mechanism may be used for holding and tripping the shaft C. In Fig. 6 I have shown an arm *c'* on the shaft C, which is engaged by 70 a bolt I, mounted in bearings on the frame B. This bolt is actuated by a lever I'. When the bolt is projected, it engages the arm *c'* and holds the shaft C from turning; but when retracted by the lever it releases the arm and 75 allows the shaft to turn and discharge the load. When the ropes are released, they immediately hang free of the load and are not caught by the cane and held within the hopper, which is one of the objections to the pres- 80 ent cane-slings.

The ropes F and G can be loosely held together by rings *h*, if desired, as shown, or they may be entirely independent.

By lowering the crane-head a sufficient dis- 85 tance the rope D can be pushed between the battens of the floor of the car under the entire load, as indicated in Fig. 1, and connected to the hook at one side of the car, and then the hook is preferably drawn in with the rope, 90 when the crane-head is raised so that the hook will come under the center of the load when it is suspended.

In Fig. 5 I have shown a closed hook having a body portion to which are pivoted the 95 two parts E' E² at *e'* *e*², respectively, and a

projection on the part E' enters a recess in the part E². The trip-rope G is connected to the part E', and a spring E³ tends to keep the parts in the position shown in the drawings.

- 5 When it is wished to release the hook, the rope G is drawn, causing the part E' to turn on its pivot so that its projection will be clear of the part E², and as the rope D is pulling on the hook of this portion it will turn
10 and release itself, allowing the bundle of cane to fall. This construction can be used where it is desired to provide a closed hook instead of the open hook shown in Fig. 1.

I claim as my invention—

- 15 1. The combination of a head, a rope attached to said head and having an eye, a shaft on said head, an arm on said shaft, a rope on said arm having a hook at its opposite end arranged to engage with the eye of
20 the other rope, a trip-rope secured to said head and to the hook, said trip-rope being of

such a length that it will be slack while the sling is carrying the load, and on the release of the shaft it will be drawn taut so as to trip the hook and release the load, substantially 25 as described.

2. The combination of a head, a series of blocks carried by the head, a shaft, a series of arms on the shaft, a sling-rope attached to each block, and a second sling-rope attached 30 to each arm of the shaft, hooks connecting the sling-ropes, trip-ropes hung from the blocks and connected to the hooks, and trip mechanism for the shaft, substantially as described. 35

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES M. DODGE.

Witnesses:

N. C. PEIRSON,
E. FUHR.